CLAIMS

1. A method for measuring an analyte in a sample containing hemoglobin or a hemoglobin degradation product by using a redox reaction, comprising:

adding at least one of a sulfonic acid compound and a nitro compound to the sample so as to eliminate an influence of the hemoglobin or the hemoglobin degradation product contained in the sample.

2. The method according to claim 1, wherein, prior to the redox reaction, at least one of the sulfonic acid compound and the nitro compound is added to the sample so as to eliminate the influence of the hemoglobin or the hemoglobin degradation product contained in the sample and thereafter, the method further comprises:

forming an oxidizing substance or a reducing substance derived from the analyte;

measuring the amount of the formed substance derived from the analyte by the redox reaction; and

determining the amount of the analyte from the measurement value indicating the amount of the formed substance.

3. The method according to claim 1, wherein both of the sulfonic acid compound and the nitro compound are added to the sample.

4. The method according to claim 1, wherein the sulfonic acid compound is at least one selected from the group consisting of sodium lauryl sulfate, dodecylbenzenesulfonic acid sodium salt, lithium lauryl sulfate, 4-aminoazobenzene-4'-sulfonic acid sodium salt, 4-amino-4'-nitrostilbene-2,2'-disulfonic acid disodium salt and 4,4'-diazidostilbene-2,2'-disulfonic acid disodium salt .

5. The method according to claim 1, wherein the nitro compound is at least one selected from the group consisting of 2,4-dinitrophenol, p-nitrophenol, 2,4-dinitroaniline, p-nitroaniline, sodium nitrite, potassium nitrite, 4-amino-4'-nitrostilbene-2,2'-disulfonic acid disodium salt and nitrobenzene.

6. The method according to claim 2, wherein the redox reaction is a color development reaction caused by reducing the oxidizing substance derived from the analyte and oxidizing a substrate that develops color by oxidation using an oxidase, and the amount of the oxidizing substance is measured by measuring a degree of the color developed in the color development reaction.

7. The method according to claim 6, wherein the degree of the color developed is measured by measuring an absorbance at a wavelength for detecting the substrate.

8. The method according to claim 2, wherein the oxidizing substance derived from the analyte is hydrogen peroxide.

9. The method according to claim 6, wherein the oxidase is a peroxidase.

10. The method according to claim 2, wherein the analyte is at least one selected from the group consisting of a glycated protein, a glycated peptide, and a glycated amino acid, and hydrogen peroxide is formed as the oxidizing substance derived from the analyte by causing a fructosyl amino acid oxidase to act on the analyte.

11. The method according to claim 10, wherein at least one of the sulfonic acid compound and the nitro compound is added to the sample before causing the fructosyl amino acid oxidase to act on the analyte.

12. The method according to claim 1, wherein the substrate that develops color by oxidation is at least one compound selected from the group consisting of N-(carboxymethylaminocarbonyl)-4,4'-bis(dimethylamino)diphenylamine sodium salt, a combination of Trinder's reagent and 4-aminoantipyrine, N,N,N',N',N",N"-hexa(2-hydroxy-3-sulfopropyl)-4,4',4"-triaminotriphenylmethane hexasodium salt, 10-(carboxymethylaminocarbonyl)3,7-bis(dimethylamino) phenothiazine sodium salt, 10-(methylaminocarbonyl)3,7-bis(dimethylamino) phenothiazine and 10-(carboxyaminomethyl-4-benzaminocarbonyl)3,7-bis(dimethylamino) phenothiazine sodium salt, and both of the sulfonic acid compound and the nitro compound are added to the sample.

13. The method according to claim 1, wherein the substrate that develops color by oxidation is at least one compound selected from the group consisting of N,N,N',N',N",N",-hexa(3-sulfopropyl)-4,4',4"-triaminotriphenylmethane hexasodium salt, N,N,N',N',N",N"-hexa(2-hydroxy-3-sulfopropyl)-4,4',4"-triaminotriphenylmethane hexasodium salt, 10-(carboxymethylaminocarbonyl)3,7-bis(dimethylamino) phenothiazine sodium salt, 10-(methylaminocarbonyl)3,7-bis(dimethylamino) phenothiazine and 10-(carboxyaminomethyl-4-benzaminocarbonyl)3,7-bis(dimethylamino) phenothiazine sodium salt, and at least the sulfonic acid compound is added to the sample.

14. The method according to claim 1, wherein the analyte is at least one selected from the group consisting of a glycated protein, a glycated peptide and a glycated amino acid.

15. The method according to claim 14, wherein the glycated protein is glycated hemoglobin.

16. The method according to claim 1, wherein the sample is a hemolyzed sample obtained by hemolyzing erythrocytes.

17. The method according to claim 16, wherein the sulfonic acid compound is added to the sample so that its concentration is 0.05 to 200 mmol/L when a concentration of blood cells in the sample is 1 vol%.

18. The method according to claim 16, wherein the nitro compound is added to the sample so that its concentration is 0.05 to 500 mmol/L when a concentration of blood cells in the sample is 1 vol%.

19. The method according to claim 16, wherein the sulfonic acid compound and the nitro compound are added to the sample so that their concentrations are 0.05 to 200 mmol/L and 0.05 to 250 mmol/L, respectively, when a concentration of blood cells in the sample is 1 vol%.